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10/630,099	07/30/2003	Ricardo Martinez Perez	CE11323JI211	8305

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EXAMINER

WAI, ERIC CHARLES

ART UNIT	PAPER NUMBER
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2195

NOTIFICATION DATE	DELIVERY MODE
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08/04/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/630,099	Applicant(s) MARTINEZ PEREZ ET AL.	
	Examiner ERIC C. WAI	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 9-12, 17, 18 and 24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 9-12, 17-18, and 24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-3, 9-12, 17-18, and 24 are presented for examination.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 9-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following terms are not clearly understood in the claims:
 - i. Claim 9 lines 4-5 recite, “the electronic device capable of executing the application in one of a regular and a reduced performance mode” and lines 7-9 recite, “the application priority level application resource requirement indicates how important it is to execute the application in the regular performance mode”. It is unclear if the background mode and foreground mode in lines 19-21 are the same or different from the regular and reduced performance modes as indicated above.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 9-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawson et al (US Pat No. 5,682,204 hereinafter Rawson).

6. Rawson was disclosed on IDS dated 11/21/2003.

7. Regarding claim 9, Rawson teaches a computer readable storage medium including computer instructions on an electronic device (col 1 lines 19-20) for managing application resources on the electronic device (col 1 lines 66-67), the computer instructions including instructions for:

receiving a command on an electronic device to execute an application the electronic device capable of executing the application in one of a regular and a reduced performance mode (col 2 lines 47-54);

reading an application priority level application resource requirement associated with the application by monitoring background/foreground mode information for the application (col 2 lines 1-8, wherein the software process has a hardware resource power state);

determining whether the application priority level application resource requirement can be met by the electronic device, wherein the application priority

level application resource requirement includes at least one of: average MIPS, lowest MIPS, peak MIPS, screen refresh rate, and I/O bandwidth (col 1 lines 33-43 and col 4 lines 43-63, wherein it is inherent that the software process has a power state requirement including a processing rate that corresponds to all measurements of MIPS); and

if the application priority level application resource requirement allows the application to be executed in background mode, switching the running of the application between one of background mode and foreground mode, based upon current application resources (col 3 lines 55-65, wherein programs switch from yet to be active to active state).

8. Rawson does not explicitly teach that the application priority level application resource requirement indicates how important it is to execute the application in regular performance mode. However, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Rawson to indicate a priority of the application. As is well known in the art, one would be motivated by the desire to schedule higher priority applications first.

9. Regarding claim 10, Rawson teaches that the electronic device is any one of a mobile telephone, a mobile pager, a wireless messaging device, a computer, a personal digital assistant, and a mobile communication system (col 1 lines 21-22).

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10. Regarding claim 11, Rawson teaches that the electronic device is a portable device (col 1 lines 18-20).

11. Regarding claim 12, Rawson teaches wherein if the application priority level application resource requirement can be met by the electronic device, executing the application on the electronic device (col 2 lines 2-8).

12. Rawson does not explicitly teach if the application priority level application resource requirement cannot be met by the electronic device, indicating to the user that the application cannot be executed on the electronic device.

13. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Rawson to indicate to the resource requester if the necessary resources to execute the application cannot be met. One would be motivated by the desire to alert the user that the system cannot proceed with execution and further action may be necessary.

14. Claims 1-3, 17-18, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rawson et al (US Pat No. 5,682,204) in view of Kozuch et al. (US Pat No. 7,225,441 hereinafter Kozuch), further in view of Diepstraten et al. (US Pat No. 6,243,736).

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15. Regarding claim 1, Rawson teaches a method on an electronic device (col 1 lines 19-20) for managing application resources on the electronic device (col 1 lines 66-67), the method comprising:

receiving a command indicating to execute an application on an electronic device (col 2 lines 47-54);

reading at least one application resource requirement associated with the application (col 2 lines 47-54); and

determining whether the at least one application resource requirement can be met by the electronic device, wherein the at least one application resource requirement includes at least one of: average MIPS; lowest MIPS; peak MIPS; screen refresh rate; and I/O bandwidth (col 1 lines 33-43 and col 4 lines 43-63, wherein it is inherent that the software process has a power state requirement including a processing rate that corresponds to all measurements of MIPS).

16. Rawson does not teach indicating to a user that the application cannot be executed on the electronic device, indicating to the user which application resource requirement cannot be met by the electronic device, indicating to the user how the electronic device can be modified to meet the application resource requirement, prompting the user for agreement to modify the electronic device, in response to a command indicating agreement, modifying the electronic device to meet the application resource requirement associated with the application, and executing the application on the electronic device.

17. Kozuch teaches a method for monitoring requests for computing resources where the resource requests are initiated by VMs (col 4 lines 36-46). The host platform or VMM makes a decision whether the power-consumption state needs to be modified and when such modification is necessary, notification about the modification is performed (col 4 lines 46-63). The VMs and VMM of Kozuch are analogous to the user and electronic device of Applicant's invention.

18. It would have been obvious to one of ordinary skill in the art to modify Rawson to teach alerting or notifying a user about a change in power-consumption as taught by Kozuch. One would be motivated by the desire to alert a user of the possibility of decreased usage of the portable device should the power state be modified.

19. It also would have been obvious to modify Rawson and Kozuch to teach prompting the user for agreement to modify the power state of the device in order to fulfill application resource requirements. One would be motivated by the desire to confirm with the user the modification could result decreased usage of the portable device should the power state be modified.

20. Rawson also does not teach wherein if the at least one application resource requirement can be met by the electronic device when the application executes in foreground mode, executing the application in foreground mode, wherein if the at least one application resource requirement can be met by the electronic device only when the application executes in background mode, executing the application in background

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mode, and wherein if the at least one application resource requirement cannot be met by the electronic device, suspending the execution of the application.

21. Diepstraten teaches dividing tasks into foreground and background tasks and using different criteria to allocate processor resources (col 4 lines 41-45). It would have been obvious to one of ordinary skill in the art at the time of the invention, to divide tasks for execution in foreground and background mode. One would be motivated by the desire to allocate resources accordingly to resource requirements by the tasks. Diepstraten does not teach suspending execution of the application if the application resource requirement cannot be met. However, it would have been obvious to one of ordinary skill at the time of the invention to modify Diepstraten for this purpose. One would be motivated by the desire to ensure resource availability before executing the application.

22. Regarding claim 2, Rawson teaches that the electronic device is any one of a mobile telephone, a mobile pager, a wireless messaging device, a computer, a personal digital assistant, and a mobile communication system (col 1 lines 21-22).

23. Regarding claim 3, Rawson teaches that the electronic device is a portable device (col 1 lines 18-20).

24. Regarding claims 17-18, and 24, they are the electronic device claims of claims 1-3 above. Therefore, they are rejected for the same reasons as claims 1-3 above.

Response to Arguments

25. Applicant's arguments filed 04/17/2008 have been fully considered but they are not persuasive.

26. Applicant argues on pg 9:

“However, the invention concerns issues in addition to the issue of which application to schedule first. This is explained in the Applicants' specification on page 16, lines 16-19, which states as follows, "In short, the application priority level indicates how important it is to run the application 350 and/or how important it is to run the application 350 in regular (not reduced) performance mode." Emphasis added. Rawson fails to disclose an application priority level application resource requirement that indicates how important it is to execute the application in the regular performance mode.”

27. Examiner disagrees. Applicant claims “an application priority level application resource requirement that indicates how important it is to execute the application in the regular performance mode”. Microsoft Computer Dictionary (5th Edition 2002) defines priority as “precedence in receiving the attention of the microprocessor and the use of system resources”. As is well known in the art, a priority values are always used to indicate how important an entity is and the allocation of resources to that entity.

Therefore, while not explicitly disclosed in Rawson, one of ordinary skill, using knowledge available at the time of the invention, would know to use a priority requirement to allocate the use of system resources.

28. Applicant argues on pgs 10-11:

“However, the Applicants disagree with the Examiner that the virtual machines (VMs) of Kozuch are analogous to the user of the Applicants' invention, and that the virtual machine monitor (VMM) of Kozuch is analogous to the electronic device of the Applicants' invention. Clearly, the Applicants' invention allows for user intervention and agreement by a person, and the electronic device of the invention responds to a decision made by the user by modifying the electronic device to meet the application resource requirement associated with the application (if such was indeed the decision indicated by the user). Kozuch fails to disclose any human intervention in its mechanism.”

29. Examiner disagrees. Interpreted according to the broadest reasonable interpretation, a “user” does not necessarily have to be a person. A user could be interpreted to be a software application or code, i.e. applications are users of application resources. Therefore, virtual machines are analogous to users as claimed, as they are users of applications resources.

Conclusion

30. Applicant's amendment necessitated the new ground(s) of rejection for claims 1-3, 17-18 and 24 presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric C. Wai whose telephone number is 571-270-1012. The examiner can normally be reached on Mon-Thurs, 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng - Ai An can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

/Eric C Wai/
Examiner, Art Unit 2195